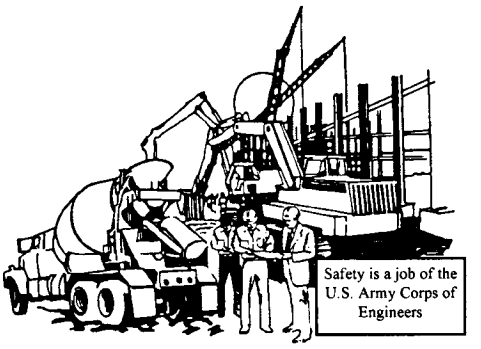
Construction News



US Army Corps of Engineers ®

Information Exchange Bulletin on USACE Construction Issues

Prepared IAW AR 25-30, issued by Department of the Army, Office of the Chief of Engineers
Directorate of Military Programs, Engineering and Construction Division

Volume X Number 1 **March 1998**

Charlie's Notes

I want to salute our construction field staff who are leading the Corps' renewed effort to provide excellent partnership and team work to installation leaders and mangers in support of our soldiers.

The Army's installation leaders gave our construction field staff high praise for their fine cooperation and service to the DPWs during the recent partnering conference at Denver, CO.

I would like to share with you some comments highlighted by our Army and Air Force installation leaders and managers:

(1) "We need your better performance in cost, time and quality":

(2) "Our facilities are almost broke. We get no more than 21% of the funds we need to operate and maintain."

(3) "DPW should not be your customer, but the DPW and the Corps, as a team, must serve our ultimate customer - our soldiers":

(4) "The last 5 % of construction is critical."

(5) "We need your excellent service. Be responsible for your mistakes. DPW's cannot afford to pay twice for the same work."

(6) "We want 'a fair price' for your service. Create tiered rates and let DPW decide level of service needed. We want flexibility for OMA work."

(7) "We want the Corps to improve our warranties."

(8) "We want Area Engineers to be collocated with DPWs."

The message is clear that we must be innovative and cooperative among ourselves, customers, partners, and stakeholders to reduce cost and time and to improve the quality of work.

Let me share with you some trends that we need to focus our technical skills management and leadership energy on to improve our performance:

Construction Cost Growth (FY97-USACE wide)	Construction Time Growth (FY97-USACE wide)
A. Design Error 3.4%	A. Design Error 8.4%
B. Total Controllable 4.8%	B. Total Controllable 11.3%
C. Total Growth 6.8%	C. TotalGrowth 27.7%

I believe these figures are competitive against other federal agencies and most members of private industry, but when they are compared against the best in the industry, we need to improve.

Let me highlight LTG Ballard's speech at the Design Professional Coalition Conference on March 9, 1998. He noted that "one key component of the Corps

Featured Inside

VISION is to REVOLUTIONIZE EFFECTIVENESS." This means that we will achieve first-class performance and customer satisfaction through applying best business practices, bold re-engineering processes and innovation use of technology.

LTG Ballard emphasizes that another key component of the Corps VISION is our commitment to SEEK GROWTH OPPORTUNITIES. We are continually evaluating the spectrum of potential customers and seeking new ways to serve the Army and the Nation. Through these new opportunities we will enhance our capabilities and better serve the Army and the Nation.

LTG Ballard's third goal to achieve our VISION is INVEST in PEOPLE, build strategic commitment and reshape our culture. We mentor our people and share learning. We inculcate among our people virtues of DIVERSITY, competency and pride in public service.

I have also prepared a short article for this issue of Construction News (see page 8) concerning LTG Ballard's recently approved nine focus areas of QC/QA.

I would like to close my notes by sharing with you our rewards. Our healthy workload is our reward. Our customers give us high marks on our overall performance. They regard us as the best in the country.

Our total workload of $11.6B ($5.2B for Civil and $6.4B for Mil) for FY98 is encouraging. I would like to highlight that our total reimbursable installation support work for FY97 was a whopping $1.43B including the Army, Air Force, DoD, Army Reserve and National Guard.

I believe our robust reimbursable installation support work is the best reward we can receive from our military customers. I especially salute our field champions who often work under a challenging environment, seven days a week, day or night. We owe a great deal to these champions in the trenches who continue to support the organization with more than their share of the load. Their actions help us earn new service missions while enhancing our esteem in the eyes of the public.

ESSAYONS

Annual Area / Resident and Contracting Workshop

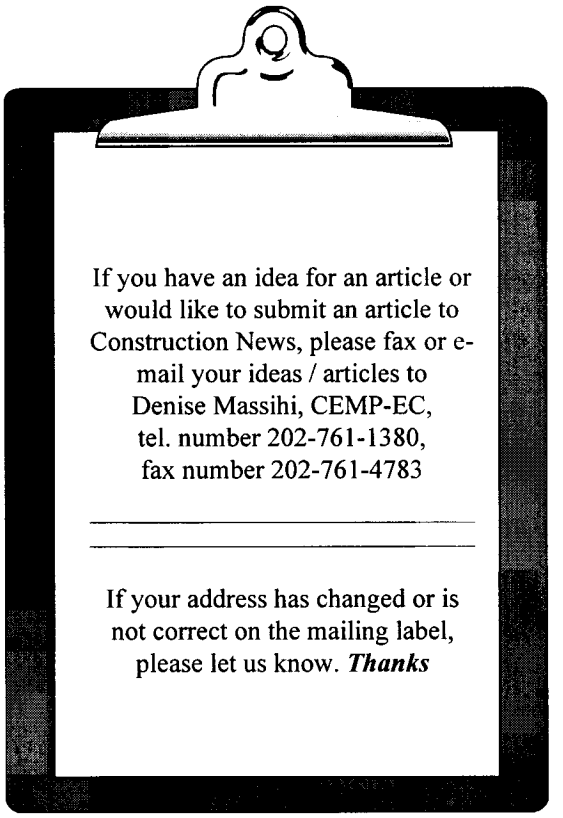
19-21 May 1998
Sheraton Park Central Hotel
Dallas, Texas

$94 / night
Group Rate extended two days before and two days after the event

Reservations
NLT 22 April 1998

Hotel Telephone Number:
972-385-3000

Event Name:
US Army Corps of Engineers
"Contracting & Engineering"



If you have an idea for an article or would like to submit an article to Construction News, please fax or e-mail your ideas / articles to Denise Massihi, CEMP-EC, tel. number 202-761-1380, fax number 202-761-4783

If your address has changed or is not correct on the mailing label, please let us know. ***Thanks***

TULSA DISTRICT AWARDS FIRST CORPS TWO-PHASE DESIGN-BUILD

The following was submitted by the Tulsa District, providing an after action summary using the new two-phase approach.

BACKGROUND: A change to Federal law and the Federal Acquisition Regulation (FAR) (January 1997) provided for a new procedure for awarding design-build contracts. This procedure, known as two-phase, allows the Government to evaluate initial offers without regard to price, and select up to 5 contractors for a final evaluation, which includes price. This procedure is particularly encouraged by the FAR when design work must be performed by offerors and offerors will incur a substantial expense in preparing offers.

The two-phase procedure was used for a $13M project, Depot Corrosion Control Facility at Tinker AFB, OK. The issues explored here are (1) was it successful in this instance?; and, (2) should the procedure be used for other projects?

DISCUSSION: This project was given to Tulsa District for fast track execution after attempts to achieve a local government execution solution failed. There was no design accomplished and no time to allow even minimal design in order to execute the project. As a result, the two-phase procedure was selected as it met all of the requirements of FAR Part 36.3 and it provided the only viable method for execution within the schedule established by the Air Force.

Tulsa was able to award this project within the required time frame, 9 months earlier than could have been accomplished by traditional design-bid-build and 3 months earlier than could have been accomplished by other design-build procedures.

Eleven proposals were received during the initial phase, about 50% more interest than previous design-build procedures had obtained. These 11 were then reduced to 3 for the second phase. The contract was awarded within funds available with no protests.

After award, questionnaires were sent to all offerors and all participants in the selection phase for the Government. In all, 27 of these questionnaires were sent with 13 responses received. The results of these questionnaires identified approximately 37 strong points to the process and 22 weak points. The significant strong points were that the process achieved significant schedule savings, provided greater incentive for innovative solutions and use of industry standards (vice military standards), placed more control/responsibility on the designer/builder and reduced the expense of preparing proposals for those not being included in the second phase. The significant weak points were that there was a large unrecoverable expense of preparing offers for the three finalists, the perception that only larger firms could succeed in being awarded these types of contracts, the process was extremely difficult and time consuming for the government evaluators, and the performance scope of work made it difficult for the final offerors to understand the users needs. Additional comments included recommendations to pay a stipend to those offerors participating in the final phase, allow design reviews during the second phase and conduct a preproposal conference at the beginning of phase two.

INSIGHTS: Site visits and a preproposal conference with each offeror selected for phase two should occur. This should alleviate the weakness which noted that the performance scope of work makes it difficult to understand the users needs.

Consideration should be given to paying a stipend for all offerors in the final phase. Although the FAR makes no allowance for paying a stipend it does not prohibit it. This would alleviate the weakness that noted that there is a large unrecoverable expense in preparing offers for the second phase.

The FAR allows for the use of one solicitation for the entire process or using a different solicitation for each phase. One solicitation was used for the Tinker project. However, there may be instances when two solicitations might be beneficial.

Competition for this project was greater than on any other design-build project issued by Tulsa District. The process required minimal effort for the initial phase proposal, an apparent reason for this larger pool of contractors from which to choose. Small business should be encouraged to participate to alleviate the weakness that noted that there is a perception that only large business could succeed. It should also be noted that one of the three finalists on the Tinker project was a local small business. There is a temptation to complicate the selection criteria used for the initial phase evaluation by requiring more definite information. This should be avoided as it could restrict competition.

CONCLUSION: The two-phase process was a success for this project and should be considered as a possible acquisition strategy on all projects, particularly those involving highly complex facilities. All respondents to the questionnaire (5 contractors) indicated they would participate in this process if it were used on future projects. As the first project using this process, there are understandably improvements that can and should be made. However, the process is another tool that should be considered by all responsible project management teams.

The points of contact in the Tulsa District are Rick Hedrick, 918-669-7269, or Susan Killgore, 918-669-7270.

Design Construction Evaluation (DCE) Update

We are now in the second quarter of the new and revised procedures for performing DCE's. The focus of the evaluations is shifting somewhat from checking compliance with HQUSACE guide specifications and regulations at the construction field office level to checking that the Divisions are reviewing their districts' compliance with those requirements. In this role we are now spending more time in the district headquarters reviewing their procedures and products. This does not mean that we will not be visiting the field installations as in the past. We will still work from the field to district and at least once every other year visit the Division to review their records and procedures.

When we do visit, we are looking for your "good news" stories on innovations or procedures you have used to provide better products and facilities to your customers. Please let us know what you have been doing in this respect and we will highlight them in our trip reports. In the past, DCE reports have focussed on identifying deficiencies and systematic problem areas. While this is an important part of any quality review process, it needs to be captured with equal focus on the great things construction folks are doing day after day.

Recent trends noticed during the DCE process include the following areas:

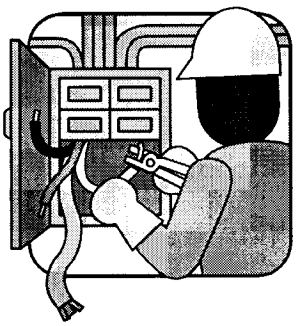
1. Fire stopping installation is not being installed as required by CEGS 07270. This specification section requires under para. 1.2, "Submittals," that the installer must be qualified by certificate to install the specified fire stopping material. It also requires that after the fire stopping material is installed then a manufacture's representative must submit a certification that states that fire stopping work has been inspected and applied according to the manufacture's recommendations and the specified requirements. Recent evaluations have shown that the records required by the specifications are not being submitted to the Corps.

2. CEGS 15556, Forced Hot Water Heating Systems Using Water and Steam Heat Exchanger. The specification in the note section in front of para. 2.18.2 requires that the makeup water analysis be provided by the designer to be included in this section. Recent DCE visits have noted that this section has not always been completed. It is an item that should be checked for during the BCOE review process. This analysis is required for the contractor to be able to supply the proper equipment and chemicals to treat the water correctly which will preserve the life of the equipment. The make up water analysis is also to be furnished by the designer in CEGS 15569, para. 2.13.1

3. CEGS 15990, Testing, Adjusting and Balancing (TAB) of HVAC Systems and CEGS 15995 Commissioning of HVAC Systems. There have been several problems observed in this area. The contractor is not scheduling enough time to complete the requirements of these sections. These requirements are quite time consuming and therefor require proper prior planning to be sure they are carried out correctly. The section on commissioning also states that a representative of the design agent and the using service should be attending the commissioning of the HVAC Systems. They are usually not showing up because they have not been informed by the Corps or contractor. Commissioning shall not start until all other testing is completed and approved including TAB.

4. Coordinated Power System Protection is a requirement in CEGS 16370, Electrical Distribution Systems, Aerial; 16375, Electrical Distribution Systems, Underground; 16415, Electrical Work, Interior and 16475, Coordinated Power System Protection. During the DCE evaluation process it has been noted that this requirement has been deleted from some specifications where it should have been required. This is an important study to be done to determine that the electrical system as installed will operate as intended. During the BCOE process this section should be looked for and comments made if it is not included. Another problem noted with this requirement is that where it is required by the specifications we do not always require the contractor to submit it. It is very important that this study be done and submitted to the government for review to assure that the system will operate properly and not create a hazard for the end user.

Your comments and concerns about these items are gratefully accepted by Terry Wilford by phone at 202-761-8652, by fax 202-761-4783 or e-mail.



Civil Works Construction Supervision & Administration

The management of Civil Works Supervision and Administration (S&A) and Construction Placement is a budget based process that is an integral part of the Project Management process. Simply stated the process consists of two phases. First, a budget for S&A cost and a schedule for construction placement are prepared and integrated into the project management plan (PMP). Secondly, the work is managed to this budget and schedule. Success is measured by comparing actual performance (i.e., actual S&A costs and actual placement) to the budgeted S&A cost and scheduled placement. The ultimate success is to spend the budgeted S&A costs while placing the scheduled placement. What? Isn't it better to underspend on S&A cost and to exceed scheduled placement? No! Either case suggests that your project management team is not doing a good job of budget preparation, or that the appropriate level of oversight is not being performed. Under spending on S&A can result in a low quality project. The object here is to "Walk our talk," "Say what you are going to do and then do what you said" or in project management lingo prepare a budget and then manage to it!

In the present environment of tight Federal Budgets it is critical that we do a good job of budget preparations and that we execute to those budgets. The budget should be consistent at each level of the organization so that everyone is singing off the same sheet of music. Obviously, preparation of a complete and accurate budget is critical to the management of S&A. Care must be exercised to assure that all costs for S&A activities including those performed by others, such as the Project Manager, are included in the budget. What activities are included in S&A? Look in Chapter 8 of ER 37-2-10, "Accounting and Reporting - Civil Works Activities" for a detailed description of the activities that should be charged to the "31 Account" or the S&A account. Keep in mind that it is the activity and not the functional area that performs the activity that determines if it is in S&A activity. Note that ER 415-1-16, "Construction Fiscal Management" is in the process of being updated to obtain agreement with ER 5-1-11, "Program and Project Management" which was issued on 27 February 1998.

You may have noticed by now that S&A percentages or S&A rates have not been mentioned. The reason is that we do not manage Civil Works S&A to a predetermined percent of placement. Each project is unique and requires a different level of effort to perform the S&A. That is why we prepare a detailed estimate for each project. What role do S&A rates play in the management process? S&A rates are used as guides in the budget preparation process. Once the budgeted S&A costs and scheduled placement are established by the project management team, the S&A rate is not a management factor. Typically, projects with small placements will require a higher S&A rate than projects with large placements, however, other factors such as technical requirements and project location are also major factors in determining project S&A requirements.

Experience shows that it is highly unlikely that our project schedule and budget will be executed exactly as planned. Therefore, it is critical that the project management team actively manages the project to make adjustment for the inevitable changes that will occur. The days of each functional area doing their own thing are over. Become an active member of the project management team.

Point of contact for CECW-OC is Ken Buck at 202-761-8833

ISO 9002 Update

As some of you are aware, there are a few Construction organizations within the Corps that are trying to become ISO 9002 certified. Two of these are Louisville and Savannah Districts. Currently, Louisville District has completed writing their manual, has trained their internal auditors and has performed a self audit. A contract has just been awarded for an outside ISO Certified audit firm to perform their preassessment audit, and then come back within 18 weeks and perform the certification audit. This means that Louisville Construction Division could join ranks with their Engineering Division as being ISO 9000 certified by the end of July 1998. Savannah District has completed writing their procedures, is in the process of doing a self audit and expects to be able to bring in the ISO certified auditors around mid June 1998. This means possible certification about the end of this fiscal year. It is noted that Portland's Engineering Division has been ISO 9001 certified and that Kansas City and Sacramento Districts are also working toward their certifications.

Point of Contact for CEMP-EC is Terry Wilford at 202-761-8652

IN THE HOPPER - AN S&A UPDATE

Webster's New World Dictionary defines "**hopper**" as a funnel-shaped container from which the contents can be emptied slowly and evenly. What better lead-in for an article on what is happening in the wild and wooly world of "S&A" at the Poolaski!

Last fall's reorganization of USACE Headquarters affected management of the Construction S&A activities. Account management and the account manager, Mr. Phil Blount were relocated to the consolidated Resources Management Directorate. Phil's number is 202-761-1267, and his office symbol is CERM-P. Construction management business practices and construction S&A waiver processing remain in the combined Engineering and Construction Directorate of Military Programs. Mr. Dick Daley in the Construction and Design Branch (CEMP-EC) handles these residual functions related to the S&A business process.

So, what are the ground rules now that S&A issues reside in two locations in the headquarters? Well, the rules are simple - it's the exceptions to the rules that are difficult. First off, ER 415-1-16 (from now on called **THE ER**) is the rule-book. There is also a neat little green-covered brochure, commonly referred to as "**that little green S&A brochure**," which summarizes the current S&A rates we charge our customers for our construction management services. Only 3,000 copies were printed and they are fast-becoming collectors' items. You can even find it on the Construction and Design Branch's web site at:
"www.hq.usace.army.mil/cemp/c/cemp-c.htm"

Simply said, we charge each of our customers the same **S&A flat rate** (a fixed percentage) if appropriated funds (like MCA, O&M and other service equivalents both active and reserve) are being used. Construction funded with non-appropriated funds (NAF), foreign military sales, host nation and other non-DOD funds is charged on a ***cost-reimbursable basis, at actual cost.*** We develop a **target** rate with the customer based upon the level of services to be performed but we charge at **actual** rates. Listed below is a table of the current S&A flat rates:

FUND TYPE	CONUS LOCATIONS	OCONUS LOCATIONS
MILCON	**5.7%**	**6.5%**
O&M	**6.5%**	**8.0%**
DERP	**8.0%**	**8.5%**

The rest of this article will focus on actions (requests for waiver) taken in the S&A arena in the last several months. Normally, the type of S&A waiver requests we receive, involves seeking a deviation from using the flat rate. Usually, the customer has requested the deviation. Sometimes, the district initiates the waiver in the hopes of obtaining additional work from the customer if the actual S&A costs are approved. Either way, the customer **must** be clearly informed in advance that there is no commitment on the district's part without HQUSACE approval to waive the flat S&A rate. ***Remember that deviation from the established flat rates and approval to use actual S&A costs is not normally permitted.*** Like snowflakes and fingerprints, no two waiver requests are exactly alike. And the only constant you can count on for sure is change. Like Yogi Berra used to say, "It's tough to make predictions, especially about the future."

On 3 June 1997, the Director of Military Programs signed out a memo to the MSC's, Districts, HQUSAF, HQDA and the Army MACOM's on the USACE policy for construction S&A management. This memo lays out the basic process for requesting a waiver of the flat rate.

First off, any requests for action from HQUSACE have to come through the Major Subordinate Command. No action will be taken on the district's request without the forwarding MSC recommendation. In the past, waiver requests were addressed to the Chief of Construction for decision. The memo cited above contains that instruction, but the construction function has now been incorporated into a new organization, Engineering and Construction Division, (CEMP-E). However, if your districts/division **Commander** signs off on an S&A waiver request addressed to the Director of Military Programs, a whole new array of possibilities arises.

If the waiver is to be approved, the Director of Military Programs may very well be the approving authority. But, the headquarters Resource Management Directorate weighs in pretty heavily when a request for S&A waiver is coordinated - especially if the request will result in an anticipated draw-down of either of the S&A accounts, MILCON or O&M. Account management responsibility no long resides in Military Programs Directorate; it is entirely a Resource Management Directorate function. On the other hand, only a Commander can deny a field Commander's request. Said another way, expect to see waiver request denials signed out from HQUSACE by LTG Ballard.

Recently, we received a request from the field to forgo collection of S&A earned on a claim that was found to have merit at the district. The basis of the

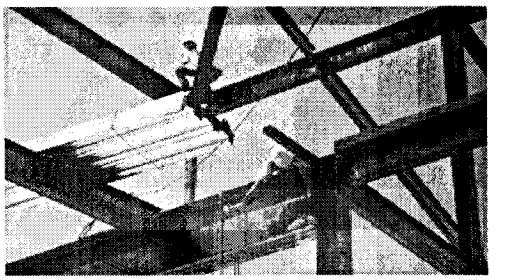
IN THE HOPPER (CONTINUED)

request was to not further burden the customer by collecting S&A on a claim which had already contributed to significant cost growth on the project. The amount of surrendered S&A money, while relatively small representing about a man-year of effort, was not the issue with which we took exception. Waiving the collection of S&A would create an approved source of S&A account leakage, which runs counter to our management philosophy of abiding by sound fiduciary management principles. It would also levy the lost costs against all other customers contributing to the account thereby charging the cost of correcting mistakes made to one customer against another customer's fees.

The S&A to be collected on the "lost" claim (a claim found to have merit) is earned as a flat rate percentage of construction value. While no doubt the Corps expended effort in defending against the claim that ultimately was found to have merit, the S&A to be collected on the lost claim represents legitimate earnings. The contractor's effort manifested in the meritorious claim confirms that the scope of the project should have been included in the original construction contract bid package. As such, the Corps is entitled to the flat rate S&A percentage ("earnings") on the value of the contract. Earnings from S&A increase in proportion to contract value for additive mods; the earnings also decrease when the contract value is reduced through deductive and/or Value Engineering Change Proposals.

Since I quoted Yogi Berra earlier in this article, I will end with a pair of non-sequiturs. It was Robert Byrne who sparingly said, "There are two kinds of people, those who finish what they start and so on." But Louis Carroll, from Alice in Wonderland, said it best when he advised, "Begin at the beginning and go on until you come to the end; then stop."

Point of Contact for CEMP-EC is Dick Daley at 202-761-8740



CONSTRUCTION PARTICIPATION IN A-E SELECTIONS

The majority of USACE construction projects are designed by private architect-engineer (A-E) firms. Selection of the best qualified A-E firm is one of the first critical steps in delivering a quality project to our customers. Construction personnel can play an important role in the A-E selection process.

USACE A-E selection procedures are covered in Chapter 3 of ER 715-1-20, Architect-Engineer Contracting (available on our web site). Paragraph 3-6.a says "where practical, a voting representative from the cognizant Construction Division will participate on an evaluation board for an A-E contract for the design of a construction project." Hence, construction participation is encouraged but not mandatory. Typically, construction representation on selections for "non-design" contracts, such as surveying and mapping, energy conservation studies, and master planning, would not be required. Also, if the project will be constructed by a different district, personnel from the constructing district should participate in the A-E selection if logistically and economically practical.

In addition to their professional architectural or engineering expertise, construction representatives provide the A-E selection process with their knowledge of local requirements and conditions, performance information on specific A-E firms, and input on special constructibility concerns. Also, resident and project engineers are usually very familiar with the customers, and can often be advocates for the customers if they cannot attend.

If you are asked to participate on an A-E preselection or selection board, we hope that you gladly accept. The selection of the "right" A-E that can produce a constructible, pleasing and well-coordinated design that satisfies the customers requirements will make your investment of time worthwhile. Prepare yourself by reading Chapter 3 of ER 715-1-20.

Point of Contact for CEMP-EC is Don Evick, at 202-761-1053

Construction Quality Management

The old Construction Quality Management "Contrast" course is being reworked from a videotape-facilitated course into an individual CD-ROM based training course. The text manual was revised and updated to bring it into compliance with the latest regulations and headquarters policy. The contractor assisting the Corps in developing the course was given the manual and directed to use their creative talents to put this information into the CD-ROM format and keep the students interest of the subject matter high. The task is quite complex to write all the code required to present this material in an interactive manner that allows the student to ask and answer questions. The first module should be ready for review in the 3rd quarter of FY98. The entire course is scheduled to be completed by the end of the fiscal year. The benefit of providing the training in the CD-ROM format is that it allows the student to advance at his/her own pace and spend a few minutes when he or she has the time available. The minimum computer system requirements for the program to operate satisfactorily are 16mB RAM, SoundBlaster or truly compatible sound card, 133 MHz processor and a 4x speed CD ROM. Your comments or suggestions are welcome.

Point of Contact for CEMP-EC is Terry Wilford at 202-761-8652.

Quality Control / Quality Assurance Focus Areas

Recently, LTG Ballard has approved the following nine focus areas of QC/QA as recommended by the MSC's:

Focus Area #1:
MSC Quality Management Plan - Each MSC must develop a Quality Management Plan (QMP) that outlines the policies and procedures that all functional areas within the MSC will follow for their QA activities.

Focus Area #2:
District Quality Management Plan - The MSC must review and concur with the district-prepared QMP, which outlines the policies, procedures and responsibilities of all functional areas for producing quality products and services.

Focus Area #3:
Quality Control Plans - The MSC must review and approve district Civil Works Quality Control Plan (QCP) for decision and implementation documents by periodically verifying the independence of technical review, resolution of comments, documentation, etc. The MSC must oversee the district's QA role when they conduct QA activities for A/E and other contracted products, including oversight of district's QA plan for monitoring contractor's QCP.

Focus Area #4:
District Quality Processes - Review district's products for QC Process Evaluation. Feedback to the district on these quality assessment audits is essential for district process improvement.

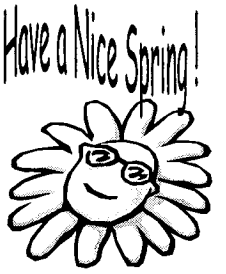
Focus Area #5:
Performance Indicators - Proactively track existing performance indicators and develop regional indicators and identify areas needing Command attention.

Focus Area #6:
Product Development - Participate in meetings, assist with policy and/or technical issues, approve deviation in technical criteria, and participate in site visits.

Focus Area #7:
Partner with District - Provide for dialog and interaction with counterparts to keep them informed of upcoming work, training, regulations etc. Also, develop and implement regional guidance, share lessons-learned, facilitate changes in criteria, facilitate partnering, share resources across districts and evaluate district technical capabilities and needs.

Focus Area #8:
Programming Activities - Continue coordination of all programming activities with HQUSACE and districts.

Focus Area #9:
Command and Staff Inspections - Examine mission execution, level of training, FTE resources, workload, compliance with standards and regulations and obtain feedback on morale, welfare, discipline and problems/ needs.



Department of Defense Standard Procurement System (SPS)

The DoD Standard Procurement System (SPS) is a Defense Department windows-based system that will replace SAACONS in all Army commands. The SPS was developed under contract with American Management Services (AMS) from commercial off the shelf (COTS) software and tailored for DoD. Deployment in USACE is currently scheduled to begin no earlier than the third week of October 1998.

One USACE site, the Transatlantic Programs Center, will participate in operational testing of SPS Version 4.0 beginning in April 1998. This assessment will last one week and follow a script. This version will not include the CEFMS interface as that interface will not be ready until later. The DoD SPS Program Manager anticipates there will be several interim revisions to the 4.0 version and at least one more full scale Version 5.0 is planned for release in 1999.

The SPS is a critical element in achieving the DoD goal of paperless contracting by the year 2000. It was highlighted at the U.S. Army Electronic Commerce Conference held 16-18 December 1997. Some field and HQUSACE personnel attended. An Army web site has been established that includes SPS information from the conference at **http://acqnet.sarda.army.mil/.** USACE has had some limited involvement with SPS through attendance at demonstrations, workshops and conferences. Following are some major issues identified that affect fielding.

a. **Interfaces with other systems such as CEFMS, RMS, ACASS/CCASS, and Construction Criteria Base (CCB).** So far, only the CEFMS interface has been committed to by the SPS Program Management Office (PMO).

b. **Equipment and support capability for a yet to be determined USACE SPS Information Management (IM) architecture.** This includes systems servers, database configuration, number and kinds of users, systems administration, funding, procurement and installation. A survey will be conducted by HQUSACE CEIM to identify equipment shortfalls.

c. **Training for users and system administrators.** The SPS PMO has committed to provide a certain level of training. Most users will receive a one week course at the district/center/lab location. Costs for per diem and travel must be borne by the individual command.

d. **Functionality issues.** This includes contract formats for A-E and construction, dual Procurement Instrument Identification Number (PIIN) for military and civil works (DACA, DACW), inclusion of all required forms, and general setup for USACE business process. These issues will affect "ease of use" and learning curve.

e. **Transition from SAACONS.** Carryover contracts, blackout, learning curve and adverse impact on year end contract awards are serious concerns.

f. **Identification of users.** Currently Army has only considered personnel in contracting offices (1102s, 1105s, and 1106s) as users. This definition may need to be expanded to include contract attorneys, ACOs and possibly other engineers.

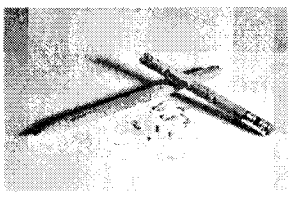
Point of contact for CEMP-EC is Mark Grammer at 202-761-0744

Construction Evaluation Retrieval System (CERS)

Have you ever wondered what happened to those observation cards written during the Design Construction Evaluations at your project/resident office? Well you can now revisit them and all the other cards written during the last three years. The information on how to access the CERS data base has been distributed to the divisions and districts. The database has been moved to a Microsoft® Access application. This move has enhanced the search capability that will now allow immediate retrieval of any card or cards meeting up to three variables. This means that you find all cards that were written by district (1), specification section (2), and were design cards (3) or any other combination that interests you. Each MSC and district will be allowed read-only capability. They can access the full cards for their district but will be able to only view the modified cards, without location and district designations, for all other districts. The connection is through the CEAP connection to headquarters.

By the time you read this article, CERS will be available through the Internet on Construction and Design Branch's web site or at ***http://webpax.hq.usace.army.mil/cers***

Point of Contact for CEMP-EC is Terry Wilford at 202-761-8652.



Civil Works Notes

Many changes are in store for our construction field offices in the next several years. These changes are being propelled by outside forces such as budget restraints, outsourcing, tighter construction schedules and more demanding users. One way to affect these changes will be to use innovative design and construction techniques for our Civil Works projects. The use of these proposed innovative techniques is being pushed by the lure of potential savings on the affected projects, minimizing navigational disturbances during project construction, and reduction of operation and maintenance costs.

These innovative techniques include: the utilization of large precast concrete structures placed in-the-wet without normal dewatering measures, float in lock chambers or walls, floating approach walls, through the sill filling and emptying system for locks, RCC lock walls, high performance construction materials and others. Some of these innovative techniques are already planned for Olmsted Dam, Monongahela River, McAlpine Lock, Marmet Lock, Kentucky Lock, the Ohio River Main Stem and others.

Although these techniques will be new to the Corps, many have been used in other places such as Japan and Europe with great success. For instance, the project "the World Bridges of Denmark" placed large precast foundation anchor blocks and bridge pylons in-the-wet after they were cast in dry dock and floated into place. They also floated and towed huge caissons, which weighed 50,000 metric tons, and sank them into their final positions in the water. Many of these innovative concepts originated in the marine environment from the construction of large offshore platforms, underwater tunnels, and over water bridges. The application of these innovative marine environment construction concepts to our riverine construction environment will require the alteration of many of our long held concepts and practices as well as our regulations and specifications. To optimize the benefits of these technical innovations we must also utilize innovative contracting methods. Our success, however, will require us to approach this challenge with the same professionalism and dedication that we have in the past.

Point of Contact for CECW-OC is Ken Buck at 202-761-8833

Update on Resident Management System (RMS) for Windows Development

Much progress continues in developing the *Windows* version of RMS, especially with testing and adjustments for the field construction office environment, communication and synchronization with PROMIS and CEFMS, and testing of overall systems architecture. RMS developers, test sites, USACE's Information Management team, PROMIS developers, and military and civil works construction leadership are all pushing hard to complete development of the key RMS features, successfully test the RMS application and the Oracle data base, compile the results, and obtain approval by July 1998 to deploy the system! Here are the details . . .

Why RMS? Just a reminder of why we're doing RMS in the first place:

- Provide standard automated system for use by all construction field offices
- Increase productivity and effectiveness of construction contract management activities
- Provide tools to improve quality of constructed products and satisfaction of customers
- Share data by communicating with other USACE automated information systems

Who is RMS for?

Construction occurs at field construction sites. Thus, RMS design focuses on management needs of *field construction personnel*, including area, resident, and project engineers; construction representatives, and field office support staff. It will also support *district-level* management activities of construction managers, project managers, resource managers, and commanders. Via its connections with PROMIS & CEFMS, it will support project and program management and quality management activities by *MSC and Headquarters-level* managers. It also electronically exchanges information with *construction contractors* via the standard data exchange format (SDEF) feature.

Why the Windows version?

RMS was originally developed as a DOS system. RMS (DOS) was a valuable tool, but here is what users were saying:

- RMS needs to be *user-friendly* because of today's user needs and expectations
- Needs to be *client-server based* to take advantage of modern technology

RESIDENT MANAGEMENT SYSTEM (CONTINUED)

- Needs to be *globally accessible* and an *open system* for easy tailoring
- Needs to be on *Windows platform* for commercial compatibility
- Needs to be an *enterprise application* for tomorrow's business environment

HOW IS WINDOWS VERSION BEING DEVELOPED?

Development is done at the RMS Center at the Corps High Desert Resident Office (CESPL) at Fort Irwin, CA, under the leadership of Mr. Haskell Barker. Haskell is supported by both government and contractor personnel, with Mr. Richard Earley leading the software development. The RMS Windows application is being programmed in *"C++" language* and RMS is designed in a *modular* fashion to give flexibility in use and maintenance. Mr. Kisuk Cheung, Chief, Engineering and Construction Division is the Headquarters functional proponent; he is supported in day-to-day management by his Construction and Design Branch, who work to coordinate RMS development with civil works, program management, and information management staffs. *Functional requirements* for RMS derive from USACE's construction contract management business process and USACE's overall project delivery process.

WHAT FUNCTIONS WILL RMS SUPPORT?

RMS will support *preconstruction planning*, the *construction and turnover-warranty phases* of construction, and the *fiscal, schedule, quality, safety,* and *contract management activities* within these phases. RMS is designed to support *all types of construction contracts* and *programs* (military, civil works, environmental, etc.). It is important to note that by design, *all features of RMS are not necessary to be used by all managers, all the time.* RMS Windows will incorporate an "above the line" and "below the line" concept, and the "above the line" data elements and RMS features will be the *basic minimum items* common to all construction contract projects and RMS users. These "above the line" requirements will be laid out in the RMS Users Guide.

WHAT IS STATUS OF RMS DEVELOPMENT AND TESTING?

Development of RMS Windows (and PROMIS) recently took a major step forward when the RMS/PROMIS developers programmed and initially tested portions of the RMS-PROMIS interface. This development includes:

- uploading *contract modification information* from RMS to PROMIS
- uploading *construction contract milestone dates* from RMS to PROMIS

PROMIS and RMS Developers are meeting in early April to determine how to share *Current Working Estimate (CWE)* data between RMS and PROMIS. PROMIS developers are also programming the software to download *future contracts* from PROMIS to RMS. Together, these PROMIS-RMS features will help electronically join the PM and construction members of the team, as well as reduce manual data calls and duplicate data entry. With the RMS-PROMIS links, field construction offices will not need to have PROMIS operating at their office, but will communicate with PROMIS via RMS. This means that there is one less system to learn and maintain at the field office level.

Earlier this year, RMS developers programmed an interface with CEFMS that allows electronic transfer of *construction contract progress payments* from RMS to CEFMS. Mr. Mark Grammer of the Construction Policy team here at HQUSACE is working with the RMS developers to revise *ENG Form 93 (Progress Payment Request)* to better display items such as stored materials, withholding from subcontractors, and items required by the Prompt Payment Act. Once this business process refinement is decided, it will be incorporated in RMS Windows.

Department of the Army and USACE are discussing plans for fielding DOD's new procurement system, known as the *Standard Procurement System (SPS)*. There will be an SPS-CEFMS interface that provides linkage between the contracting and the financial management systems. We also want to electronically link *construction contract modification* data from RMS with SPS. Depending on the details of the SPS-CEFMS interface, this *construction contract modification* info may flow through the SPS-CEFMS interface or there may be a separate RMS-SPS interface. Because of the uncertainties with SPS schedules, this *contract modification* linkage will not be in the initial RMS Windows version. But since both SPS and RMS are Windows-based systems, we anticipate being able to add this functionality soon after SPS details are known.

Overall development and testing of RMS for Windows remain on track, although there has been a slight schedule slippage to late June (from April) in the planned approach to deploy RMS. The primary reasons for this schedule adjustment are to ensure the necessary RMS-PROMIS features are available, to work out the various client-server architecture details, and to stabilize the software we know is so critical to users.

RESIDENT MANAGEMENT SYSTEM (CONTINUED)

WHERE ARE THE RMS TEST SITES?

After some delays, test sites started being brought up last November. The test sites represent different construction programs (military/civil), systems architecture, and contract types. These test sites are also at different stages of experience with RMS and in testing RMS Windows. The test sites are:

- Olmsted Resident Office and Columbus Resident Office, Louisville District
- Bay Area Resident Office, Baltimore District
- North Texas Area Office, Fort Worth District
- Fort Leonard Wood Resident Office, Kansas City District
- Anniston Resident Office, Huntsville Engineering Center
- Warner Robins AFB Area Office, Savannah District

We owe a debt of gratitude to these test sites for the extra efforts they are making to test RMS Windows and provide the necessary feedback to refine and complete development. We are collecting data on a variety of factors ranging from functionality, to screen design, response times, hardware requirements, error rates, communications requirements, etc. Test site feedback is incorporated into new test versions of the RMS software, which are then shipped back out to the test sites for further analysis and use. We plan to run a stable version of the software in April-May to verify we have the quality product to go with for approval and fielding.

(HERE IS SOME COMPUTER TECHNICAL STUFF TO SHARE WITH YOUR IM PARTNER OR CONSTRUCTION COMPUTER TECHIE).

Test results on the *data base software* indicate that Oracle version 7.3xx (*Server for Workgroups or Enterprise*) performs satisfactorily for RMS Windows. The latest release should be used for computers using the *Windows NT* Server and Windows 95 Clients. For *stand-alone systems* such as laptops using Windows 95, *Personal Oracle* 7.3.3 or higher data base software is required. Laptops using Windows NT 4.0 should use Oracle for Workgroups or Oracle Enterprise version 7.3xx. Earlier versions of Oracle are not fully compatible with storage of CADD, photos, and MS Word documents. For peer-to-peer networks using Windows 95 requiring a local server (meaning that the database will not be located offsite), a Windows NT4.0, Novell, or Unix box will be required for server installation. This server can be an existing server on the existing LAN. A Unix server is the easiest to support and maintain from a central location.

HOW WILL RMS BE FIELDED?

After the testing is completed and approval is obtained, we will be fielding RMS in *two basic phases*. The *first phase* will focus on fielding RMS Windows with *current* RMS DOS users. The *second phase* will focus on *new* RMS users. We anticipate doing the *first phase* in the July-September 1998 period, and the *second phase* in the October-December period. Fielding will be done in full coordination with construction and information management staffs at MSCs. Training will be done using a train-the-trainer approach. Fielding will involve verification of availability of necessary *hardware and communications*, loading of the *RMS Windows* application software on the client computer, loading of the RMS *Oracle data base* on the server computer, and appropriate *access to district's PROMIS and CEFMS data bases*.

Where client-server *communications* (ISDN, T-1 lines or Winframe) are adequate for timely screen response times, the RMS Windows data base will reside on the *CEAP platform* at Vicksburg or Portland. Where client-server communication lines are not adequate for this configuration, the RMS Windows data base will reside on a *local server*, and daily (or more frequent if required) uploads will be made to the district data base on the CEAP server. A complete *fielding plan* (e.g., set up instructions, user manuals, on line user helps, conversion software for loading RMS DOS data, training material, training site schedule, etc.) is being developed and will be ready for the deployment. RMS Windows application software and other information will be downloadable from an Internet Website to be set up in the near future.

HOW WILL DISTRICTS BE CHARGED FOR RMS?

As previously announced in fiscal guidance to MSC commanders, Districts will be charged a *site license fee* each year to pay back (over a 10 year period) the RMS *development costs* (financed by PRIP). The *site license fee* will also pay for RMS *operation and support services* provided by the RMS Center. Like constructed facilities, all automated systems require periodic fixes and upgrades to keep current with user needs, technology advances, and business process changes. These fixes/upgrades, along with training support, hot line support, etc. also will be financed by the annual *site license fee*.

The Information Management Directorate here at Headquarters is proposing a Corps-wide Oracle

licensing arrangement, which would cover all Corps information systems (including RMS Windows) and Corps users requiring an Oracle license. If that works out, it should be the most cost-effective alternative, and the annual Oracle maintenance fee will also be repaid via the *site license fee*. We will keep you updated on the status of this HQ Information Management initiative.

Based on our current plan for completing development and initiating deployment, we intend to begin charging districts site license fees for the last quarter of FY98. This FY98 quarter-year charge will range from about $2,000 - $12,000 total per district in FY98. Guidance on FY99 site license fees will go out to MSCs in June. Because of the relatively low RMS development costs and economical RMS Support Center staffing, we believe RMS site license charges will be both *affordable* (even in the tight S&A environment) and a *good value* for districts.

OK -- WHAT'S THE WRAP UP?

RMS Windows is a *critical tool* to help field construction managers tame the administrative and communication beasts, and *turn an avalanche of construction and contract data into information that can be efficiently and effectively used* to make important decisions on *quality, schedule, fiscal, and contract* matters. We realize that all these systems such as PROMIS, CEFMS, SPS, CCASS, and RMS come together on the ground at districts, so we are working hard to make them come together in their *design and development*. We realize that users need a *functioning system* -- when it is fielded, so we are committed to rigorous testing on a variety of sites, projects, programs, and systems architectures. We know that users want modern systems designs and technology, capable of working over the Internet and in different organizational environment, so we are committed to a modern Windows application with maximization of commercial off-the-shelf features. We know that users must work in partnership with construction contractors and designers, so we are committed to electronic data exchange via SDEF and the SPECSINTACT submittal register.

The latest RMS Windows application will be extensively demonstrated at the May 19-21 Area-Resident Engineer Workshop in Dallas, TX. We and the RMS Support Center will continue to provide updates on development and fielding plans as we move through the next several months.

The RMS Support Center may be reached at
by phone at 760-380-4386,
or by
fax at 760-386-7310.

Here in Construction and Design Branch,
our POC is
Karl Klonowski at 202-761-0645.